STANLEY MANUFACTURING CO.

1892

LEATHER SPLITTING MACHINE. CATALOGUE

108 SUMMER ST.

BOSTON MASS.

ILLUSTRATION AND DESCRIPTION

OF

Leather Splitting Machines,

MADE BY

STANLEY MANUFACTURING CO.,

No. 108 Summer Street,

BOSTON, MASS.

1892.

Information can be obtained, and in many instances Machines are kept in stock by the following well known dealers in Boot and Shoe Machinery.

ROSS, MOYER M'F'G CO., Cincinnati, Ohio.

ROSS, MOYER M'F'G CO., Chicago, Ill.

FRED'K A. SHERWOOD, Rochester, N. Y.

GEO. A. SMITH, Mach'y Co., Philadelphia, Pa.

ROSS, MOYER M'F'G CO., Philadelphia, Pa.

J. K. KRIEG & CO., New York, N. Y.

E. E. SPENCER & CO., New York, N. Y.

SANBORN & WHITE, Haverhill, Mass.

C. P. BULLEN, Haverhill, Mass.

HENRY W. COLBATH, Lynn, Mass.

DOLLIVER BROS., San Francisco, Cal.

ROSS, MOYER M'F'G CO.. Boston, Mass.

SWAIN FULLER M'F'G CO., Boston, Mass.

INTRODUCTION.

The Leather Splitting Machines used by Shoe Manufacturers up to the year 1857, were very poorly planned and constructed. At that time most of the machines were small, and made for hand power only, steam power not having been introduced for the work to any extent. The use of power and the advance in the art of manufacturing shoes called for improvement in the splitting of leather, and machines capable of doing better work were demanded. About the year 1864, the first machines for splitting the remnants of upper leather were made. Up to this time, only the thicker and coarser parts of sole leather were split.

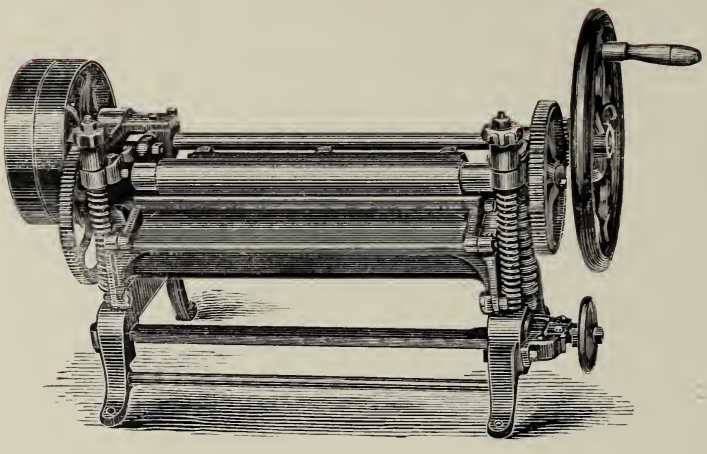
Previous to the time when Mr. J. A. Safford, the maker and inventor of the Centennial Machine, commenced to make and sell splitting machines, such machines as were in use were very crude, and one of the first improvements made by Mr. Safford was to add a Gauge and connect both ends of the Gauge Roll, or Smooth Roll, with the Rod that held the Gauge Wheel, which resulted in moving both ends simultaneously, obviating the difficulty experienced in moving the gauge roll accurately when moving first one end and then the other, as had to be done, because each end of the roll was connected separately to each end of

the Machine by Thumb Screws, without a connected gauge. Following this improvement was that of the Double Beveled Knife. In all Machines, including the first Centennial Machine, which Mr. Safford made, the Rolls were mounted in sliding boxes. One fault of such a construction was, that with the opening of the Rolls, as the leather passed between them, the gears on the ends of the roll connecting and giving motion to them, were thrown out of gear just as much as the rolls were moved, which caused the gears to work badly. Another fault which such Machine had was that due to the friction of the sliding boxes, which prevented the movement of the rolls being always easy and accurate, the fault occuring in the movement of one end of the roll before the other, due to the fact that the friction of the boxes by wear did not remain alike but a short time. Mr. Safford seeing the faults determined to overcome them and did so in the improvement made by discarding entirely the sliding boxes and putting into the Machine in place of them, pivoted arms, in which to mount the rolls, and in so adjusting the arms that the gears on the ends of the rolls, when the rolls opened, moved around the circumference of each other and were always in correct position and were never thrown out of gear in the least, and the friction of the movement of the rolls in opening, as the leather passed through was only that caused by the slight movement of the arm on its pivot. Another

feature introduced by Mr. Safford, was a correct Knife Gauge, which on his Machine, is attached to the frame and not on any movable part of the Machine, and it is self evident that that is the only place where it can be fixed to be always permanent and accurate in its relation to the rolls, the wear of the parts of the Machine not affecting its position, which always remains correct, a valuable improvement over other Machines. Having discovered the means of correcting what was an obstacle to the further improvement of the Machine, Mr. Safford was enabled by his ingenuity and ability to take a decided lead in offering the best Machine, and his Machines, called by him the Centennial, soon became well known everywhere and continued to grow in favor.

Some years since, seeing the need of having greater facilities to meet the demands upon him to still more generally introduce his Machines, he put the manufacture and sale entirely in our hands. During the time that the Machines have been made by us, we have given them every possible attention, that in all respects they should be as well made as good material and workmanship could produce, and Mr. Safford has been free to devote his time to still further improvements, and the Machines have thus had our combined efforts to make them as perfect as possible.

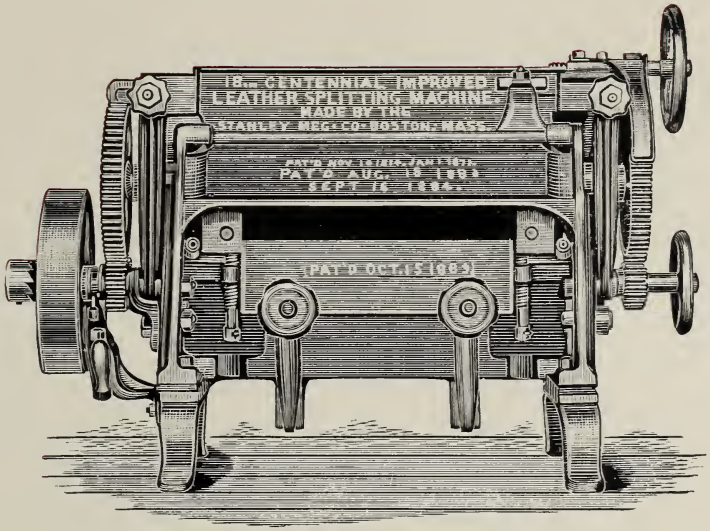
The Machines that we now offer are shown in the following illustrations:—



The above illustration shows the Harness Leather Splitting Machine constructed with the rolls placed one above the other. In other respects this Machine embodies the same construction and has all the special and valuable features found in our Machines shown in the following illustrations.

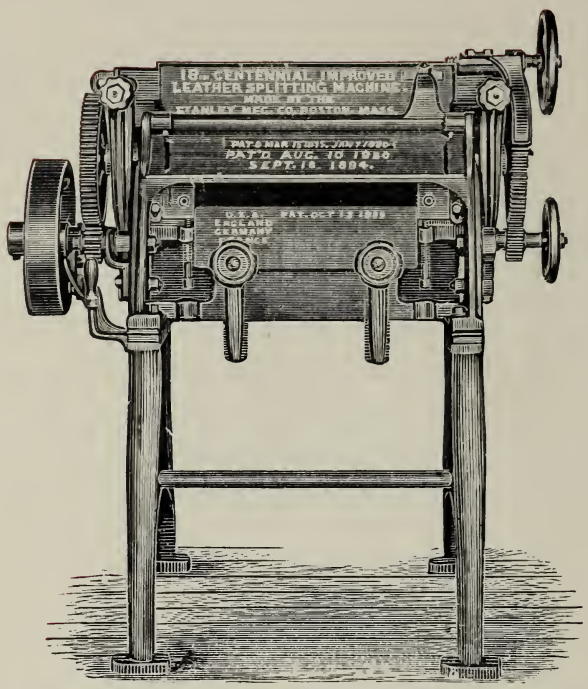
We build the Machine in two sizes. 14 inch and 18 inch. A balance wheel for hand power is supplied when required.

The size of the pulley is 10 inches in diameter. The speed is 150 revolutions per minute.



This Machine shows the 18 inch Upper Leather Machine.

This Machine is made especially for splitting upper leather. For such purposes it has shown itself to be unquestionably superior to Machines made in the old way with sliding boxes and other consequent faults, such as bad gearing. The splitting of upper leather perfectly, has always been the test of the good qualities of a Machine, and our plan of mounting the rolls in centered pivoted arms, avoiding boxes and bad gearing is clearly shown by the perfect work our Machine always produces, to be a marked feature of excellence in a Splitting Machine, and absolutely essential for accurate work. The size of the driving pulley is 10 inches, and the speed is 125 revolutions per minute.



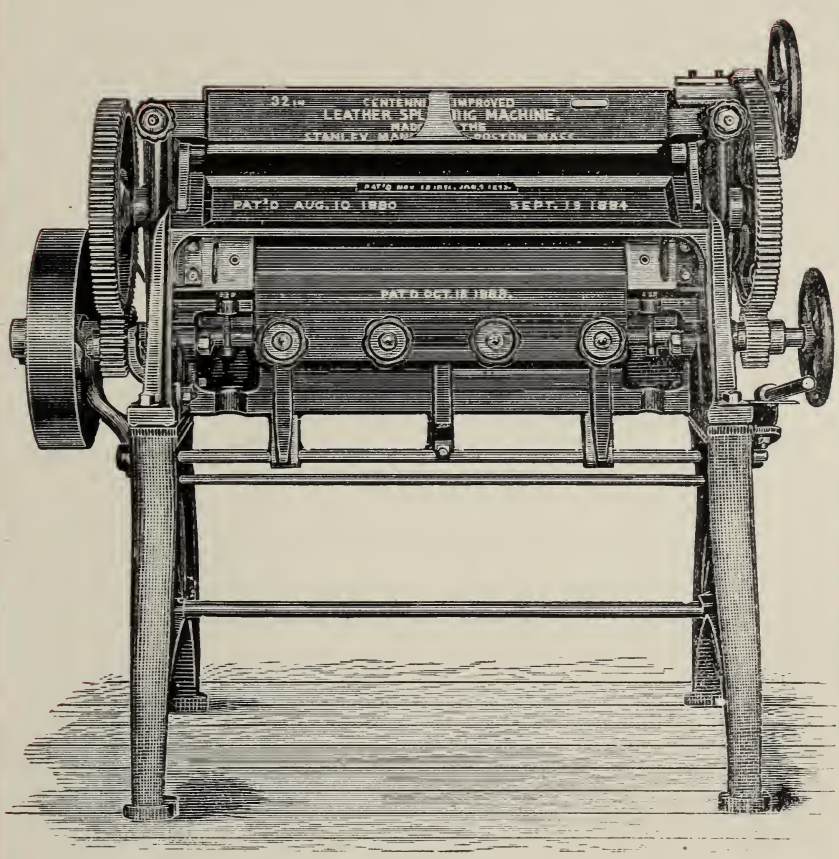
This illustration shows the 18 inch Sole Leather Splitting Machine.

This Machine is most commonly used for evening soles, and accurate work and speed are its special good qualities, and make it a general favorite for this work.

The Machine is constructed upon the same general plan as the Upper Leather Machine, shown on the previous page, and contains every feature of excellence found in that Machine.

It is mounted on high legs of convenient heighth and is solid and strong in every way.

The size of the driving pulley is 10 inches and the speed is 175 revolutions per minute.



This illustration shows the 32 inch Machine, which is the same in every way except size, as the 24 inch, 28 inch and the 38 inch.

These Machines are sufficiently heavy and strong to split any leather for which each Machine is especially designed, and the wear of the parts is so slight that it will keep its adjustments a

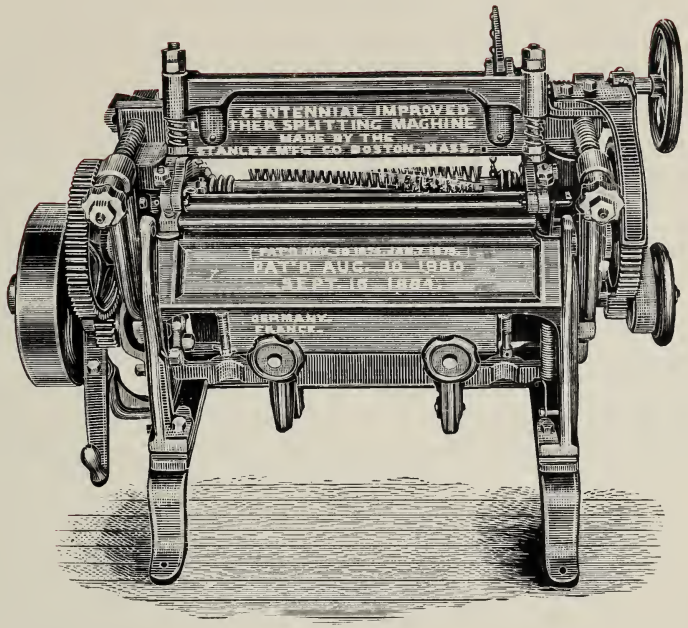
long time. If the Knife is kept sharp, scarcely any other attention is needed besides oiling.

The 24 inch Machine is especially adapted for splitting light bellies, small shanks and pieces for heeling.

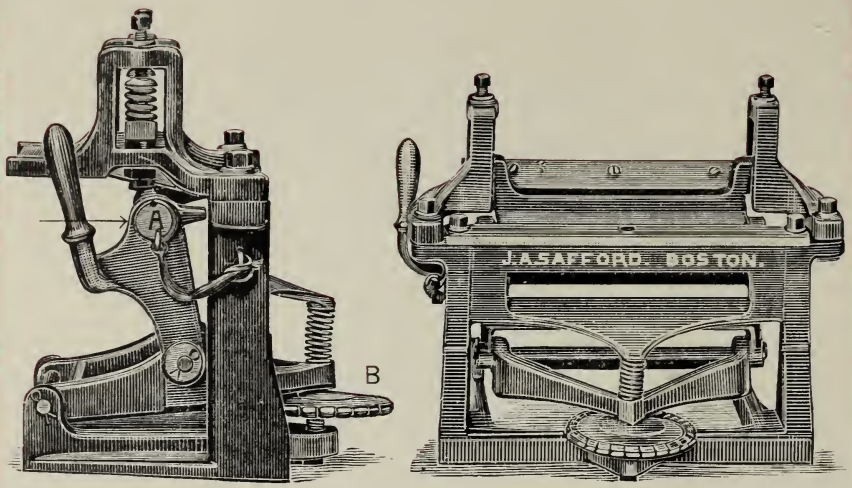
The 28 inch is used for splitting a heavier grade of leather, such as wide heavy union bellies, backs, large shanks and heads.

The 32 inch and 38 inch are designed for splitting the heaviest grades of leather, such as Buffalo, raw hide, etc.

Size of pulley, 15 inches, speed 125 to 150 revolutions per minute, according to the kind of leather it is desired to split.



The above illustrated Machine is our "Special" Upper Leather Machine. With it, such work as calf and cordovan skirting in wide pieces, and other leather of too soft a texture to be split on the usual Upper Leather Machine, can be successfully split. It has extra attachments for the purpose, as will be noticed in the illustration; in the Binder Roll to keep the leather perfectly smooth and straight, and a Wiper Attachment for preventing the leather from sticking to or winding around the fluted roll.



The "Bench" Skiving Machines made by us are a decided improvement over the usual form of this Machine, and some of the improvements are shown in the above illustrations.—Such as the gauge for setting the knife, shown at "A" and the gauge shown at "B", determining the thickness of the cut to be taken from the leather in splitting it, and means for keeping the leather smooth and straight, insuring an even cut, as the leather is drawn through and split. There is no hesitancy on the part of any one who has once seen the excellent work that this Machine will do, in declaring that it is the best, and that to purchase it is cheapest in the end.

The following illustrations are for the purpose of showing the difference in essential features between our Machine with the improvements which have been previously referred to in this catalogue, and other Machines made without such improvements.

The first illustration, page 17 represents a side view of our improved Machine, and shows the "Arms" "A" and "B", in which are mounted the Smooth and Feed Rolls of the Machine and the manner of pivoting the arms at "C" and "D". It will be seen that when the leather is being fed through the Machine, in splitting it, that the rolls will open freely, there being little or no resistance from the bearings at the pivots. The improvement therefore in so mounting the Rolls in Arms instead of mounting them in sliding boxes as shown in the cut on page 16 is, that the very troublesome friction of the sliding boxes is avoided. This friction although apparently slight, was found in practice to be the cause of much difficulty and poor work. It proved to be the case in almost every Machine, no matter how carefully the boxes and the bearings for them were made and fitted. The boxes or the bearings themselves soon became more or less worn by friction, thereby causing the boxes and with them the Rolls to move unevenly, that is, one box, and consequently one end of the Roll would move more easily than the other end, and start ahead

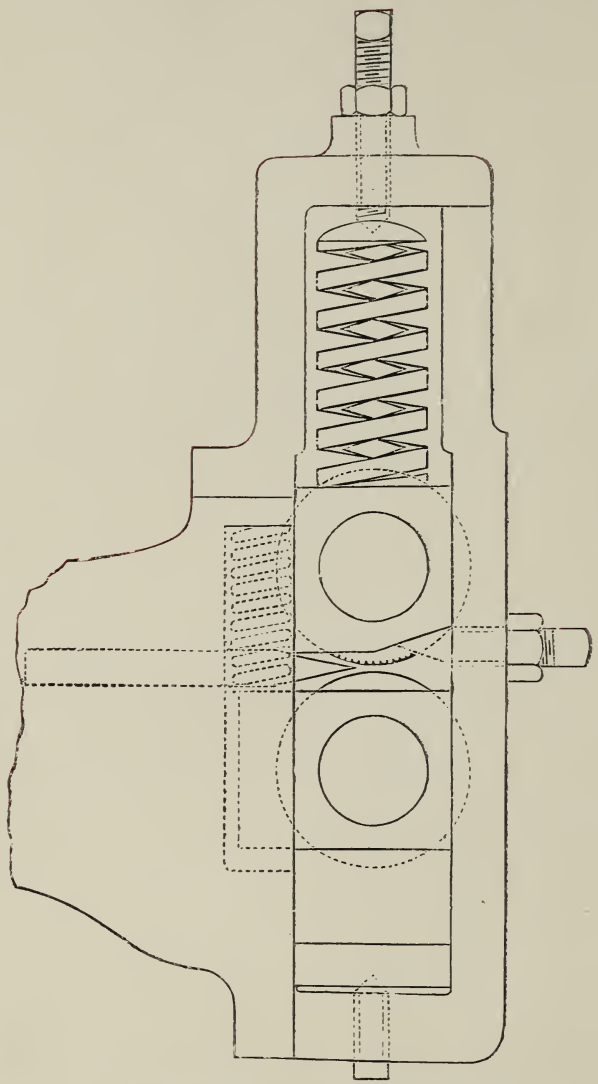
of it, making the Machine work unevenly and produce poor work. To the contrary, the friction of the bearings at the pivots is extremely slight, because but very little movement of the pivot bearing is ever necessary to open the Rolls even to the fullest extent. It may be said therefore, that in our Machine friction is reduced to the lowest degree and almost avoided. This is a great advantage as all who are familiar with the working of Splitting Machines can testify.

The next valuable feature in our Machine to which we wish to call particular attention, is the movement of the gears over the circumference of each other when the Rolls open, as the leather passes between them to be split. That is to state that the gears are not drawn away from each other when the Rolls are opened by the passing of the leather in being split, but are made to occupy a different position on the circumference of each other. This is accomplished by having one gear fixed to the bed of the Machine, and so attaching in the necessary position the arm that carries the other gear, that the arm will swing in just that circle necessary to carry the gear over the circumference of the gear fixed to the bed of the Machine. It is not possible therefore to throw the gears out of gear, as is the case, and is what always happens in machines made with sliding boxes. The gears in such machines move away from each (out of gear) as the boxes open when

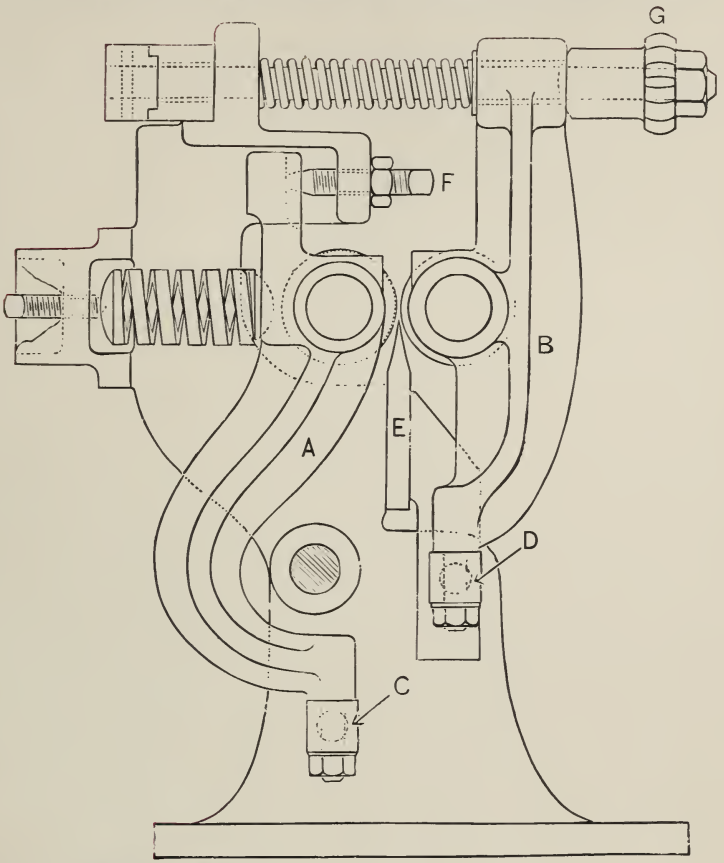
the leather passes between the rolls in being split, and are thrown out as much as the boxes move. This bad gearing our Machines avoid.

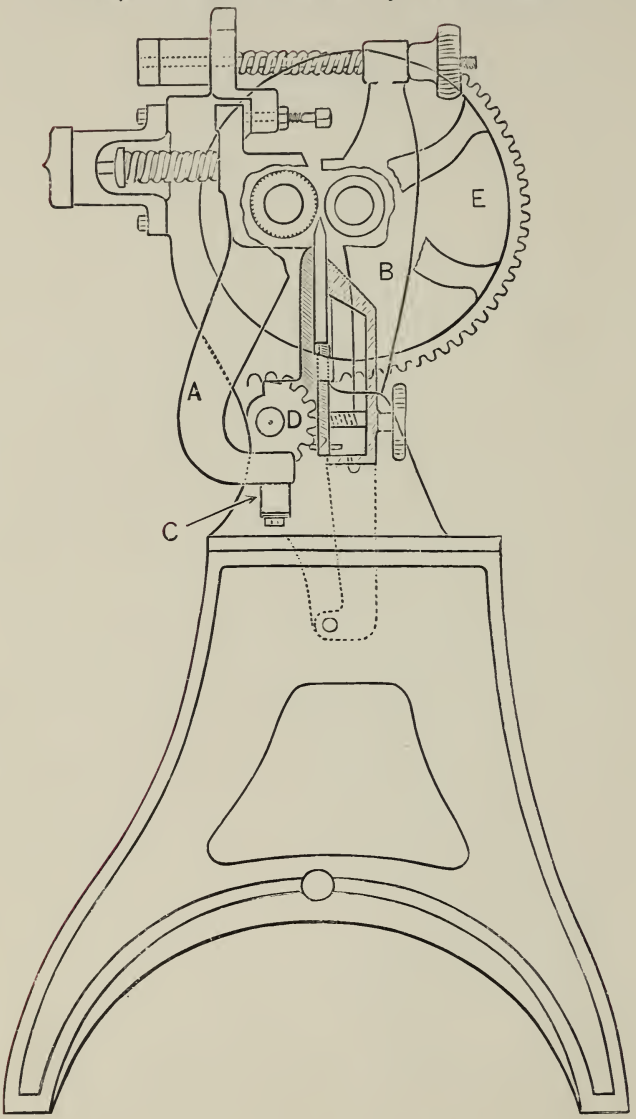
The parts used in the construction of our Machines are interchangable, and any part can be easily and quickly attached to the Machine without any fitting, whatever, thereby saving a great deal of annoyance, delay and expense for repairs.

This advantage over Machines not made with duplicate parts can be readily appreciated, especially by one who has had the experience of having to send his Machine back to the manufacturer of it whenever a part was broken, or the Machine became worn and needed new parts for repairs.



End view of Machine showing pivoted arms.



A — *Front Arm.*
B — *Back Arm.*
C — *Back Arm Pivot.*
D — *Front Arm Pivot.*
E — *Knife.*
F — *Screw for adjusting back roll to edge of Knife*
G — *Hand Nut for paralleling front roll to back roll.*

Complete end view of Machine.